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(54) **METHOD FOR RECOVERING ETHYLENE DURING THE PROCESS FOR PRODUCING VAC AND A DEVICE THEREOF**

(71) Applicant: **Yingjin Yuan**, Tianjin (CN)

(72) Inventors: **Minhua Zhang**, Tianjin (CN); **Xiuqin Dong**, Tianjin (CN); **Cheng Liu**, Tianjin (CN); **Minli Tao**, Tianjin (CN); **Yonghui Li**, Tianjin (CN); **Huisheng Lv**, Tianjin (CN); **Yingzhe Yu**, Tianjin (CN); **Zhongfeng Geng**, Tianjin (CN)

(73) Assignee: **Tianjin University**, Tianjin (CN)

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Primary Examiner — Duane Smith
Assistant Examiner — Cabrena Holecek
(74) *Attorney, Agent, or Firm* — Bei & Ocean; George G. Wang

(57) **ABSTRACT**

The present invention discloses a method and a device for recovering ethylene during the process for producing vinyl acetate, wherein a double solvent absorption method composed of an absorbent solution and deionized water is adopted. The method is as follows: introducing an outlet stream as an absorbent solution from the upper section of the feeding plate in an acetic acid tower during the rectification stage of vinyl acetate production; delivering same to the top of the lower section of the ethylene recovery tower by a delivery pump; charging refined gas from the tower bottom of the ethylene recovery tower for contacting with the absorbent solution in a counter-current; delivering the absorption bottom solution to the rectification stage for treatment; the gas continuing to rise to the upper section of the ethylene recovery tower and contacting with the deionized water introduced from the top of the tower in a counter-current; absorbing and removing the acetic acid therein; and discharging the residual inert gas, such as N2, from the top of the ethylene recovery tower. The absorbent solution is a mixture of acetic acid, vinyl acetate and water, and comprises by weight percentage of 50-85% acetic acid, 5-30% vinyl acetate and 5-20% water.

4 Claims, 1 Drawing Sheet